

J. Postel
28 May 71

Kleinick

SPADE Group Meeting

Attendees: Lou, Mark K., Bill, Jon, John, Chuck, and Kelvin

Physical RAD4 went down last night, which has the controller in it. XDS is working on it.

On System dumping we will not use a new tape if tape errors occur unless they are unrecoverable. Last nights dump on a new tape with no errors when read this morning had 4 errors.

The changes of state of hardware (and software) which affect operations should be logged. In particular a power supply in the Graphics Station was found off.

New NCP and Bsps will be in the system soon. There was a talk by CCN on the ARPA net which was attended by several group members.

Imlac's are crashed (software) we need a general way to reload them.

Lou describes STARTPROC. STARTPROC gets the system running by starting programs whose names are found in a table or file. New STARTPROC turns on alarm which is a request to enter console number via the sense switches. Then types on that console "SEX READY". Every command you enter and all responses are entered in a file called "SEXLOG".

Commands

:V	displays files in STATIC DIR
:B filename	create new static file
:L filename	load contents file into STATIC TABLE
:U filename	does L and brings up system
:D	displays the running programs (in CREATE TABLE)
:I	displays the contents of STATIC TABLE
:+ name,op	add a permanent
:- name,num	delete permanent
:* name,op	add temporary cleaned up by R
:/ name,num	delete temporarily option on U command

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where op is

$[J]$	$[S]$	$[J \#]$	$[C \#]$
$[P]$	$[I]$	$[P \#]$	$*Char$
	$[B]$		

(1) (2) (3) (4)

J = Job

P = Process

S = System bit

I = I/O bit

B = Both bits

J# = Job number

P# = Process number

C# = Console number

*Char = Multiplex character

if option 1 is null than J is assumed

if option 2 is null then no bit is given

if option 3 is null then STARTPROC chooses a number

if option 4 is null then no console or not multiplexed

:P nn Stops a job or process

:R nn Resume a job or process

where nn is name or number

:S name, op starts program running without entering it into any file.

:K $[J]$ nn Kill a job or process. If no arguments the whole system goes down

:H Kills all the entries in the CREATE TABLE only STARTPROC is running

:G General message generator puts a message in STATUS FILE and sets a bit in STATUS FILE and every program should look at it.

This is unclean, we will remove it.

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Startproc get an interrupt
 does read event
 if none and SS 3 up kill system
 if event, is it from an acceptable process
 if not ignored
 checks type of event
 type = READ or WRITE
 if not ignored
 if ok Reads/Writes the I/O Buffer of Subpact
 of the process that sent the event.

STARTPROC will be installed Tuesday

Bill talks about Cleaner Consoles.

now:

A job can have at most 1 real console associated with it. Only one process in the job can have the console attached.

A process can have at most one console attached (real or fake). Programs which act as fake consoles must have the system bit.

Real consoles have modes, Fake consoles do not.

PDP: ATCDPROC	Subpact: BYTECNT
CNSLINF	IOBUFR
LOGDIS	READPRNT

Plan:

add calls:

FREAD, FPRINT, FECHO
SETCTBL, FSPTCTBL

add data areas:

PDP: PORTNUM	SUBPACT: PDRTNO
	CTBL

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in Bsys

PORTAB

attached	DA (Subpact)
not attached	-DA (Pdp)
not in use	O

← indexed by port number

first 17 are real
rest are fake

Assign calls change to return port number

CTBL in subpact has MODES, TAE, Wake Char, interrupt Chars, Margin sets.

Break will take you up but not finproc and possibly do a STOP on the process.

Bill, Lou, Chuck, and Jon will work on this problem June 7-11.

Measurement idea: We should measure the NCP with out bytes vs. NCP with bytes.

Summer plans will be discussed next time.